



DEPARTMENT OF THE ARMY  
PACIFIC OCEAN DIVISION, U.S. ARMY CORPS OF ENGINEERS  
FORT SHAFTER, HAWAII 96858-5440

REPLY TO  
ATTENTION OF

CEPOD-PDC

23 MAY 2011

MEMORANDUM FOR COMMANDER ALASKA ENGINEER DISTRICT (CEPOA-CO-  
O/JULIE ANDERSON), P.O. BOX 898, ELMENDORF AFB, AK 99506-0898

SUBJECT: Programmatic Review Plan Approval for Routine Operation and Maintenance of  
Navigation Projects

1. The enclosed Programmatic Review Plan for Routine Operation and Maintenance of Navigation Projects has been prepared in accordance with EC 1165-2-209, Civil Works Review Policy, dated 31 January 2010. The Alaska Engineer District and Pacific Ocean Division are the lead offices to execute this Programmatic Review Plan which does not include Independent External Peer Review.
2. I approve this Programmatic Review Plan. It is subject to change as circumstances require, consistent with project development under the Project Management Business Process. Subsequent revisions to this Programmatic Review Plan or its execution will require new written approval from this office.
3. The point of contact for this memorandum is Mr. Russell Iwamura, Senior Economist, Civil Works Integration Division, at 808-438-8859 or email [Russell.K.Iwamura@usace.army.mil](mailto:Russell.K.Iwamura@usace.army.mil).

FOR THE COMMANDER:

Encl  
as

EUGENE M. BAN, P.E.  
Director of Programs



# **PROGRAMMATIC REVIEW PLAN**

**For**

**Operations and Maintenance Routine Navigation Projects**

**Alaska District**

**May 4, 2011**

**MSC Approval Date: May 23, 2011**

**Last Revision Date: None**



**US Army Corps  
of Engineers®**

## PROGRAMMATIC REVIEW PLAN

### Operations and Maintenance Routine Navigation Projects

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## **1. PURPOSE AND REQUIREMENTS**

a. **Purpose.** This Programmatic Review Plan defines the scope and level of peer review for routine navigation projects managed by the Alaska District Operations and Maintenance Branch.

### **b. References**

- (1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010
- (2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2011
- (3) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
- (4) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007
- (5) CEPOA-QMP-001, Alaska District Quality Management Plan, 28 Dec 2010
- (6) CEPOA-7.1-11 Study Quality Management, 7 June 2010
- (7) ER 5-1-11, Management USACE Business Practices, 1 Nov 2006
- (8) ER 1110-2-1150, Engineering and Design for Civil Works Projects, 31 Aug 1999
- (9) ER 1110-2-1302, Engineering and Design Civil Works Cost Engineering, 15 Sep 2008
- (10) ER 1110-2-1806, Earthquake Design and Evaluation for Civil Works Projects, 31 July 1995
- (11) ER 1130-2-520, Navigation and Dredge Operations and Maintenance Policies, 29 Nov 1996
- (12) Engineering Pamphlet (EP) 1165-2-1, Digest of Water Resources Policies and Authorities, 30 July 1999
- (13) Civil Works Operations and Maintenance Program Management Plan, Alaska District, 11 August 2009
- (14) CECW-P Policy Memorandum #1, Subject: Continuing Authorities Program Planning Process Improvements, 19 Jan 2011

c. **Requirements.** This review plan was developed in accordance with EC 1165-2-209, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R). The EC outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. In addition to these levels of review, some products, like decision documents, may be subject to cost engineering review and certification (per EC 1165-2-209) and planning model certification/approval (per EC 1105-2-412).

## **2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION**

The RMO is responsible for managing the overall peer review effort described in this Review Plan. For documents that only require DQC, the effort will be managed by the Alaska District. In accordance with EC 1165-2-209, Section 9.c.(2), the MSC, Pacific Ocean Division, will serve as the RMO for "other work products" that require Agency Technical Review.

The RMO will coordinate with the Cost Engineering Directory of Expertise (DX) to ensure the appropriate expertise is included on the review teams to assess the adequacy of cost estimates, construction schedules and contingencies.

### 3. STUDY INFORMATION

- a. **Routine O&M Documents.** This Programmatic Review Plan applies to the routine O&M documents described below:

- (1) Contract Drawings and Specifications – contract documents describing the scope and schedule of construction.
- (2) Dredged Material Management Plans – plans describing approved locations for dredged material storage, reuse, and/or disposal.
- (3) Value Engineering Studies – reports describing cost saving measures considered and evaluated to reduce costs and/or improve performance.
- (4) Letter Reports/Monitoring Plans – reports describing the results of technical evaluations or procedures to monitor a project.

The table below summarizes the review actions for the routine O&M projects covered by this Review Plan. Documents not covered by this plan will require a project-specific Review Plan.

Document	Approval Level	NEPA	DQC	ATR	IEPR
<b>Annual Maintenance Dredging Projects</b>					
Contract Drawings and Specifications	POA	X	X		
Dredged Material Management Plans	POA	X	X		
Value Engineering Studies	POA	N/A	X		
Letter Reports/Monitoring Plans	POA	N/A	X		
<b>Non-Recurring Maintenance Projects</b>					
Contract Drawings and Specifications	POA	X	X		
Value Engineering Studies	POA	N/A	X		
Letter Reports/Monitoring Plans	POA	N/A	X		

- b. **Study/Project Description.** Alaska System consists of the entire state of Alaska. Within this system are 48 navigation projects. Five navigation projects are maintained annually. The navigation projects vary from subsistence small boat harbors for native villages to a deep draft harbor that accommodates 90% of all cargo entering Alaska.

Project descriptions, maps, purpose and costs to date are included in the report "US Army Corps of Engineers Alaska District, 2009 Project Maps and Index Sheets". This report is updated annually, with sections available on the web site <http://www.poa.usace.army.mil/CO/CoOrg/Ops.htm>.

#### **Annual Routine Maintenance Projects**

**Anchorage Harbor** is the primary commercial deep draft harbor for the State of Alaska and is a National Strategic Port. Annual maintenance dredging has been occurring since 1967 to an authorized depth of -35 ft MLLW along the existing 3,000 ft long dock face, the newly completed north extension area, and approach wings. Annual maintenance dredging of the Port is required from May thru October to ensure safe access to dock facilities 90% of the time during this period and ensuing winter months when dredging is not possible due to ice flows. If the work is not performed there will be major delays in the Just-In-Time shipments of commerce to 90% of the State's population due to heavy shoaling in the approach to and along the dock face. DOD vessels

would also be delayed. Anchorage Harbor is authorized by the Rivers and Harbors Act, 3 July 1958 (House Doc. 34, P.L. 85-500, 85th Congress, 1st Session) and the Consolidated Appropriations Act of 2005 (P.L. 108-447).

**Dillingham Harbor** is a critical harbor of refuge for the Bristol Bay fishing fleet and subsistence fishermen. General navigation features include a 5.28 acre mooring basin and 1,100 foot long by 90 ft wide entrance channel maintained to a depth of -12 ft MLLW. The harbor provides half-tide access and all-tide moorage for over 320 commercial fishing vessels. The harbor is also used as an alternate landing area for lighterage vessels. The project requires annual maintenance dredging or commercial and subsistence fishing vessels will not be able to access the harbor to off-load fish for processing nor be able to re-supply for continued operations. The harbor is located at the northern end of Nushagak Bay in western Alaska and has been dredged annually since 1960. Dillingham Harbor is authorized by the Rivers and Harbors Act, 3 July 1958 (House Doc. 390, 84th Congress, 2nd Session).

**Homer Harbor** is a critical harbor of refuge for the Cook Inlet fishing fleet and subsistence fishermen. The harbor consists of an outer entrance channel 700 ft long, with various widths maintained at -20 feet MLLW; an inner entrance channel 850 ft long by 90 ft wide maintained at -20 feet MLLW; a maneuvering channel 2,790 ft long by 100 ft wide maintained at -20, -15, and -10 ft MLLW; two breakwaters 1,018 ft and 238 ft long; and a 50-acre mooring basin maintained by local interests. Maintenance dredging at this project is performed in conjunction with the separately funded maintenance dredging of the adjacent U.S. Coast Guard berthing area. The harbor is located on the southern end of the Kenai Peninsula in south-central Alaska and has been dredged annually since 1972. Homer Harbor authorizations include the Rivers and Harbors Act, 3 July 1958 (P.L. 85-500 House Doc. 34, 85th Congress, 1st Session) and the Rivers and Harbors Act, 19 August 1964 (P.L. 88-451).

**Ninilchik Harbor** is a critical harbor of refuge for the Cook Inlet fishing fleet as well as a subsistence harbor. The project consists of a mooring basin 400 ft long by 120 ft wide maintained at -12 ft MLLW; the entrance channel is 575 ft long by 50 ft wide maintained at -19 ft MLLW; two rubble mound jetties each 240 ft long protect the entrance channel. The basin and channel provide access for fishing boats to unload their catch and take on supplies. The harbor is located on the western side of the Kenai Peninsula on the shores of lower Cook Inlet and has been dredged annually since 1971. Ninilchik Harbor is authorized by the Rivers and Harbors Act, 3 July 1958 (P.L. 85-500 House Doc. 34, 85<sup>th</sup> Congress, 1<sup>st</sup> Session).

**Nome Harbor** is located on the southern coast of the Seward Peninsula in western Alaska. The city of Nome is approximately 540 miles northwest of Anchorage. The harbor is a major commercial distribution and transfer center for Northwest Alaska, supports a commercial crab and halibut fleet, subsistence harbor, and harbor of refuge. The project has an inner harbor turning basin 600 ft long by 250 ft wide maintained at -8 ft MLLW with sheet pile bulkheads on the south and east sides; a 3,760 ft long entrance channel 150 ft. to 350 ft wide maintained to -10, -12, and -22 ft MLLW. The project also contains a single span composite steel girder bridge 118 ft long by 25 ft wide on the causeway leading to the cargo dock. This harbor has been dredged annually since 1949. Nome Harbor is authorized by the Rivers and Harbors Act, 8 August 1917 (House Doc. 1932, 64th Congress, 1st Session) and the Water Resource Development Act of 1999, 106<sup>th</sup> Congress, Section 101 (a) (3), (P.L. 106-53).

### **Non-recurring Routine Maintenance Projects**

Current projects that may receive funds in the next three to five years are listed below. These projects are expected to result in documents that require a review subject to this review plan.

**Bethel Harbor** is a critical harbor of refuge, subsistence, and major commercial distribution and transfer center for the Kuskokwim River region in southwest Alaska. It consists of a mooring basin 591 ft long and 160 ft wide; a maneuvering channel 418 ft long and 94 ft wide; and an entrance channel 1,270 ft long and 31 ft wide, all maintained at -4 ft MLLW. Maintenance dredging of this project is required on a 7 to 10-year frequency and is performed during winter months when the harbor is completely frozen to allow material to be removed with locally available conventional excavation equipment. Maintenance dredging was last performed in 1997. Bethel Harbor is authorized by the Rivers and Harbors Act, 14 July 1960, under Section 107 (P.L. 86-645).

**Douglas Harbor** provides protected moorage for 100 small craft vessels and provides moorage for the large commercial fleet in the Juneau/Douglas area of Southeast Alaska. The government, commercial fishing, and tourism provide a unique and diversified economy in the metropolitan area. All transportation to the area is by sea or air. The project consists of a 400 ft long by 380 ft wide boat basin accessed by a 345 ft by 60 ft wide entrance channel. Both are dredged to an authorized project depth of -12 ft MLLW. A 105 ft jetty helps protect the inner harbor from heavy wave action. Maintenance dredging of sediment is needed. The project was last dredged in 1997. Douglas Harbor is authorized by the Rivers and Harbors Act, 3 July 1958 (House Doc. 286, 84th Congress, 2nd Session).

**Elfin Cove** supports a small local fleet of commercial fishing vessels and is a harbor of refuge. It is one of two protected harbors in the vicinity of the busy fishing grounds of Cross Sound near Juneau in Southeast Alaska. Three hundred small boats operating in the vicinity seek shelter from storms and obtain supplies at Elfin Cove. The project consists of a 574 ft by 40 ft inner channel dredged to a depth of -8 ft MLLW and a 300 ft by 60 ft outer channel dredged to a depth of -10 ft MLLW. Vertical datum updates in the area confirm reports from community officials that fishing vessels are having problems entering and departing the harbor on the lower end of the tide cycles. This harbor requires maintenance dredging. It has not been dredged since it was constructed in 1958. Elfin Cove Harbor is authorized by the Rivers and Harbors Act, 2 March 1945 (House Doc. 579, 76<sup>th</sup> Congress, 3<sup>rd</sup> Session).

**Haines Harbor** is used by local and transient fishermen primarily employed by halibut and gill net salmon fish processors. The harbor (200 vessel capacity) is also home to resident recreational craft. Haines is an important link in the Alaska Marine Highway System. It is located in Southeast Alaska at the southern end of the Haines highway, linking southeastern Alaska by road with the Interior, the South-central region, and the Yukon Territory. The project consists of a 555 ft entrance channel ranging between 75 and 110 ft wide and dredged to a depth of -15 ft MLLW. The boat basin is 4.2 acres with depths ranging from -11 to -14 ft MLLW. The harbor is protected by a 905 ft long detached breakwater. Maintenance dredging is needed at this harbor. It has not been dredged since it was constructed in 1976. Haines Harbor is authorized by the Rivers and Harbors Act, 14 July 1960, Section 107.



**Kodiak Harbors (St Paul and St Herman's)** together form the third largest commercial fishing port in the United States, is a world leader in king crab production, and ranks among the top four national ports in halibut production. The St Paul Harbor has a 11.7 acre mooring basin protected by two breakwaters 1,250 ft and 780 ft long respectively. This harbor was authorized a one-time dredging in the WRDA 2007. St. Herman's harbor is located across Near Island channel and consists of a main breakwater 1,500 ft long, a stub breakwater 430 ft long, and a 100 ft long north breakwater. St. Herman's harbor also has two entrances 60 and 100 ft wide and dredged to a depth of -12 ft MLLW. This harbor has not been dredged since it was completed in 1997. Rock removal is needed in the entrance channel of both harbors. Authorizations include the Rivers and Harbors Act, 30 August 1935 (House Doc. 208, 72nd Congress, 1st Session); the Rivers and Harbors Act, 3 September 1954 (House Doc. 465, 83rd Congress, 2nd Session); Section 202 of Public Law 99-662 (Senate Doc. 6, 96<sup>th</sup> Congress, 1<sup>st</sup> Session) 17 November 1986; Section 102 of the Water Resource Development Act of 1990 (Public Law 101-640, 101<sup>st</sup> Congress) 28 November 1990; and Section 5033 of the Water Resources Development Act of 2007 (Public Law 110-114)."

**Old Harbor**, located on Kodiak Island, provides protected moorage for 40 resident and transient commercial fishing vessels. This harbor is an important harbor of refuge and subsistence for this region. The project consists of a boat basin 700 ft long and 200 ft wide and a 620 ft long by 60 ft wide entrance channel, both dredged to -8 ft MLLW. A 1,250 ft long diversion dike and a 240 ft long groin divert freshwater from Big Creek from the harbor and provide erosion protection along the local airstrip. A recent condition survey and tidal benchmark updates shows this harbor is in need of maintenance dredging. Maintenance dredging last occurred in 1993. Old Harbor is authorized under Section 107 of the Rivers and harbors Act, 14 July 1960 (Public Law 86-645).

**Petersburg North Harbor** is the base of operation for 300 commercial vessels. It consists of a mooring Basin of 8.8 acres maintained at depths of -11 ft and -15 ft MLLW; an approach apron 1,450 ft long, width varies, maintained at -24 ft MLLW; and a Forest Service Channel 150 ft long and 40 ft wide maintained at -8 ft MLLW. Petersburg is located in Southeast Alaska and boasts the largest home-based halibut fleet in the world. It is also known for its shrimp, crab, salmon, herring, and other fish products. Maintenance dredging of about 30,000 cy of sediment is needed. This harbor has not been dredged since it was originally constructed in 1957. Petersburg is authorized by the Rivers and Harbors Act of 30 August 1935 (House Doc. 483, 72<sup>nd</sup> Congress, 2<sup>nd</sup> Session); the Rivers and Harbors Act of 2 March 1945 (House Doc. 670, 76<sup>th</sup> Congress, 3<sup>rd</sup> Session), and the Rivers and Harbors Act of 2 September 1945 (House Doc. 501, 83<sup>rd</sup> Congress, 2<sup>nd</sup> Session).

**Seward Harbor** is the base of operations for 465 commercial and recreational vessels. The Seward Harbor expansion was completed in 2010 and includes a 38 acre mooring basin with depths of -12.5 feet and -15 feet MLLW, a -15.5 feet entrance channel, and two rubble mound breakwaters 1,915 feet and 1,060 feet long respectively. Maintenance dredging of about 11,000 cy is needed in the mooring basin and maneuvering channel. Seward Harbor was authorized in the Water Resources Development Act of 1999 (Public Law 106-53) and by the Energy and Water Appropriations Act of 2002 (Public Law 107-66).

**St Paul Harbor (Pribilof Islands)** is an important commercial, subsistence, and harbor of refuge in the Pribilof Islands. It features a main breakwater 1,050 ft long, a detached breakwater 1,000 ft long, entrance and maneuvering channels maintained at -20 ft MLLW, width varies, and three offshore reefs. An extraordinary deep scour hole off the west end of the detached breakwater may need to be filled in order to prevent foundation failure. Rock was last added to the breakwaters in

1995. St. Paul Harbor is authorized by the Water Resources Development Act, 17 November 1986 (Public Law 99-662, Section 202); the Water Resources Development Act of 1996, (Section 101(b)(3), Public Law 104-303); and the Water Resources Development Act of 1999, 106<sup>th</sup> Congress (Public Law 106-53).

**Wrangell Narrows** is a 24-mile-long channel located between the Kupreanof and Mitkof islands, near Petersburg, Alaska and used by the Alaska Marine Highway, cruise ships, and fishing vessels to provide a safe alternative to 90 miles of hazardous seas. In early 2006, the NOAA survey vessel RAINIER located numerous rocks approximately 75 feet from the eastern edge of the channel and 5 feet above the project depth which need to be removed. The channel was last dredged in 2001. Wrangell Narrows is authorized by the Rivers and Harbors Act, 3 March 1925 (House Doc. 179, 67<sup>th</sup> Congress, 2nd Session); the Rivers and Harbors Act, 30 August 1935 (House Doc. 647, 71<sup>st</sup> Congress, 3<sup>rd</sup> Session), and the Rivers and Harbors Act, 2 March 1945 (House Doc. 260, 76<sup>th</sup> Congress, 1<sup>st</sup> Session).

- c. **Factors Affecting the Scope and Level of Review.** Operations and Maintenance projects are not particularly challenging or risk-involved. The projects generally do not contain new or controversial scientific information and are not likely to constitute highly influential scientific assessments. Performing long-term repair and maintenance work is not highly controversial with the public with regard to size, nature, effects, economic benefits and cost, and environmental effects because the projects already exist and have historically performed their function well. Work is not based on novel methods, does not present complex challenges for interpretation, does not contain precedent-setting methods, and does not present conclusions that are likely to change prevailing practices. The governor of the State of Alaska has not requested a peer review by independent experts of any Operations and Maintenance project. The program is limited in scope and impact that it would not significantly benefit from ATR or IEPR.

**In-Kind Contributions.** Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR. Operations and Maintenance projects are usually 100 percent federally funded. Sponsors most often provide upland disposal sites with appropriate certification of ownership to the Real Estate Division prior to advertising for project construction. There are generally no in-kind products or analyses to be provided by the non-Federal sponsor.

#### 4. DISTRICT QUALITY CONTROL (DQC)

DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). The home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home MSC.

a. **Documentation of DQC.**

DQC is the foundation for quality of all products, and there are routine district processes that cover DQC. Section Chiefs are responsible for all work products produced by disciplines in their sections. Reviewers should be individuals who have not previously been involved with the project, but who do possess the proper credentials to perform the review. DQC is conducted for all reports and Plans and Specifications covered by this document. All team members review the final work product to

ensure coordination of disciplines and to provide quality assurance. Branch Chiefs will ensure that DQC is completed.

DQC is documented by a district process where Section and Branch Chiefs formally certify products once they are complete. This is conducted after each review.

## **5. AGENCY TECHNICAL REVIEW (ATR)**

The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by the designated RMO and is conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. ATR teams will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. The ATR team lead will be from outside the home MSC, however, for Section 107 projects the ATR lead may be from the home MSC if approved by the MSC Commander (See reference 1b(14)).

- a. **Products to Undergo ATR.** The projects covered by this Review Plan are performed annually. Neither the risk nor the magnitude of the routine maintenance projects included in this Review Plan are expected to trigger the need for an ATR and would not benefit greatly from the review. Therefore, no ATRs are planned.
- b. **Required ATR Team Expertise.** Not applicable.
- c. **Documentation of ATR.** DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:
  - (1) The review concern – identify the product’s information deficiency or incorrect application of policy, guidance, or procedures;
  - (2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not been properly followed;
  - (3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
  - (4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in order to then assess whether further specific concerns may exist.

The ATR documentation in DrChecks will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be

elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

At the conclusion of each ATR effort, the ATR team will prepare a Review Report summarizing the review. Review Reports will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;
- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issue (if any); and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A sample Statement of Technical Review is included in Attachment 2. The DrChecks document, Review Report, and Statement of Technical Review will be done should ATRs become necessary for the activities covered by this Review Plan.

## **6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)**

IEPR may be required for decision and implementation documents as well as other work products under certain circumstances. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-209, is made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted. There are two types of IEPR:

- **Type I IEPR.** Type I IEPR reviews are managed outside the USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-209.
- **Type II IEPR.** Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk

management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.

- a. **Decision on IEPR.** Projects included in this review plan are either performed annually or exist and need repairs. Neither the risk nor the magnitude of the routine maintenance projects included in this review plan are expected to trigger the need for an IEPR. Therefore, no Type I or Type II IEPRs are planned.
- b. **Products to Undergo Type I IEPR.** Not-Applicable.
- c. **Required Type I IEPR Panel Expertise.** Not-Applicable.
- d. **Documentation of Type I IEPR.** Not-Applicable.

## **7. POLICY AND LEGAL COMPLIANCE REVIEW**

The documents covered by this Review Plan will be reviewed throughout the study process for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the home MSC Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision documents.

## **8. COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION**

The RMO is responsible for coordinating with the Cost Engineering DX, located in the Walla Walla District, for all studies requiring ATR or Type I IEPR. The DX will assist in determining the expertise needed on the ATR team and Type I IEPR team (if required) and in the development of the review charge(s). The DX will also provide the Cost Engineering DX certificate. This coordination will take place should ATRs or IEPRs become necessary for the activities covered by this Review Plan.

## **9. MODEL CERTIFICATION AND APPROVAL**

EC 1105-2-412 mandates the use of certified or approved models for all planning activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models, for the purposes of the EC, are defined as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision making. The use of a certified/approved planning model does not constitute technical review of the planning product. The

selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

EC 1105-2-412 does not cover engineering models used in planning. The responsible use of well-known and proven USACE developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed. As part of the USACE Scientific and Engineering Technology (SET) Initiative, many engineering models have been identified as preferred or acceptable for use on Corps studies and these models should be used whenever appropriate. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

- a. **Planning Models.** Not Applicable.
- b. **Engineering Models.** Not Applicable.

#### **10. REVIEW SCHEDULES AND COSTS**

- a. **ATR Schedule and Cost.** Not Applicable.
- b. **Type I IEPR Schedule and Cost.** Not Applicable.
- c. **Model Certification/Approval Schedule and Cost.** Not Applicable.

#### **11. PUBLIC PARTICIPATION**

Opportunities for public comment include presentations at community meetings and forums. NEPA updates may trigger the need for public comment periods. Significant and relevant public comments not resolved in the project documents will be provided in the memo to the review team. Peer reviews are not expected. Resolution of public comments is usually directly back with the commenter from a community meeting and through the NEPA process.

#### **12. REVIEW PLAN APPROVAL AND UPDATES**

The Pacific Ocean Division Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE members) as to the appropriate scope and level of review for the projects covered by this plan. Like the PMP, the Review Plan is a living document and may change as the study progresses. The home district is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last MSC Commander approval are documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, should be posted on the Home District's webpage. The latest Review Plan should also be provided to the RMO and home MSC.

#### **13. REVIEW PLAN POINTS OF CONTACT**

Public questions and/or comments on this review plan can be directed to the following points of contact:

- *Allen Churchill, Chief of Operations Branch, Alaska District, (907) 753-2753*
- *Helen Stuppelbeen, Pacific Ocean Division (808) 438-8526*
- *Russell Iwamura, Review Management Organization, Pacific Ocean Division (808) 438-8859*

**ATTACHMENT 1: TEAM ROSTERS**

<b>Project Delivery Team*</b>		
<b>Name</b>	<b>Office</b>	<b>Phone Number</b>
Allen Churchill	Operations Chief	753-2753
Julie Anderson	Operations Project Manager	753-5685
Michael Tencza	Operations Project Manager	753-2648
Ken Eisses	Hydraulics and Hydrology Chief	753-2742
Jamil Abu-Niaj	Specifications Section Chief	753-5681
Thomas Kretschmar	Real Estate Chief	753-2859
Marcus Palmer	Soils and Geology Chief	753-2665
Scott Olson or Lynn Meyers	Southern Area Office Project Engineers	753-2884/2866
Michael Salyer	Environmental Resources Chief	753-2690
Ze Jong	Resident Engineer, Southern Area Office	753-2503
Karl Harvey	Cost Engineering Chief	753-5738
Mike Utley	Materials Chief	753-2691
Christine Dale	Contracting Officer	753-5618
Anne Burman	Office of Counsel	753-2532
<b>ATR Team</b>		
N/A		

\* Supervisors are listed in some instances because this review plan contains multiple projects that may have several different members of thier staff participating on the team.



## ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS

### COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the <type of product> for <project name and location>. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-209. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrChecks<sup>sm</sup>.

SIGNATURE

Name

ATR Team Leader

Office Symbol/Company

Date

SIGNATURE

Name

Project Manager

Office Symbol

Date

SIGNATURE

Name

Architect Engineer Project Manager<sup>1</sup>

Company, location

Date

SIGNATURE

Name

Review Management Office Representative

Office Symbol

Date

### CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: Describe the major technical concerns and their resolution.

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

SIGNATURE

Name

Chief, Engineering Division

Office Symbol

Date

SIGNATURE

Name

Chief, Construction Division

Office Symbol

Date

<sup>1</sup> Only needed if some portion of the ATR was contracted

**ATTACHMENT 3: REVIEW PLAN REVISIONS**

<b>Revision Date</b>	<b>Description of Change</b>	<b>Page / Paragraph Number</b>

#### ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

<u>Term</u>	<u>Definition</u>	<u>Term</u>	<u>Definition</u>
ASA(CW)	Assistant Secretary of the Army for Civil Works	NED	National Economic Development
ATR	Agency Technical Review	NER	National Ecosystem Restoration
CSDR	Coastal Storm Damage Reduction	NEPA	National Environmental Policy Act
DPR	Detailed Project Report	O&M	Operation and maintenance
DQC	District Quality Control/Quality Assurance	OMB	Office and Management and Budget
DX	Directory of Expertise	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
EA	Environmental Assessment	OEO	Outside Eligible Organization
EC	Engineer Circular	OSE	Other Social Effects
EIS	Environmental Impact Statement	PCX	Planning Center of Expertise
EO	Executive Order	PDT	Project Delivery Team
ER	Ecosystem Restoration	PAC	Post Authorization Change
FDR	Flood Damage Reduction	PMP	Project Management Plan
FEMA	Federal Emergency Management Agency	PL	Public Law
FRM	Flood Risk Management	QMP	Quality Management Plan
FSM	Feasibility Scoping Meeting	QA	Quality Assurance
GRR	General Reevaluation Report	QC	Quality Control
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RED	Regional Economic Development
IEPR	Independent External Peer Review	RMC	Risk Management Center
ITR	Independent Technical Review	RMO	Review Management Organization
LRR	Limited Reevaluation Report	RTS	Regional Technical Specialist
MSC	Major Subordinate Command	SAR	Safety Assurance Review
		USACE	U.S. Army Corps of Engineers
		WRDA	Water Resources Development Act

